## PATENT COOPERATION TREATY

## **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 1789-12401	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.						
International application No. PCT/US04/07600	International filing date (day/month/year) 12 March 2004 (12.03.2004)  (Earliest) Priority Date (day/month/year) 13 March 2003 (13.03.2003)							
Applicant WILLIAM MARSH RICE UNIVERSITY								
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.								
This international search report consists of a total of $\overline{2}$ sheets.								
It is also accompanied by a copy of each prior art document cited in this report.								
Basis of the Report     a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.								
the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).  b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:								
contained in the internation	contained in the international application in written form.							
filed together with the international application in computer readable form.								
furnished subsequently to the	furnished subsequently to this Authority in written form.							
furnished subsequently to the	furnished subsequently to this Authority in computer readable form.							
	the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.							
the statement that the information been furnished.	the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.							
2. Certain claims were found	Certain claims were found unsearchable (See Box I).							
3. Unity of invention is lacking (See Box II).								
	With regard to the title,  the text is approved as submitted by the applicant.							
	the text has been established by this Authority to read as follows:							
5. With regard to the abstract,								
1 K-71 -	the text is approved as submitted by the applicant.							
the text has been establishe	ed, according to Rule 38.2(b), by this		as it appears in Box III. The applicant may, rt, submit comments to this Authority.					
6. The figure of the drawings to be put as suggested by the application because the applicant failed		ło	None of the figures					
because this figure better o	haracterizes the invention.							

Form PCT/ISA/210 (first sheet) (July 1998)

\* 3. F. A.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/07600

		P	C170304707600				
A. CLASSIFICATION OF SUBJECT MATTER							
IPC(7) : A 61 F 002/02							
US CL : 623/11.11, 1, 11, 12, 66; 424/ 422-428; 428/304.4, 311.51.							
According to International Patent Classification (IPC) or to both national classification and IPC  B. FIELDS SEARCHED							
Minimum documentation searched (classification system followed by classification symbols)							
U.S.: 623/11.11, 1, 11, 12, 66; 424/422-428; 428/304.4, 311.51.							
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched							
PALM							
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)							
EAST	ta base consulted during the international search (name	oi uata vase aliu, wilete	practicaute, scal	on terms used)			
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A DO OVER STATE OF COLUMN TO THE DELLEVANTE.							
C. DOCUMENTS CONSIDERED TO BE RELEVANT							
Category *	Citation of document, with indication, where ap	Relevant to claim No.					
Y	US 6348069 (VACANTI et al.) 19 February 2002, se	1-49					
	IIC 5055610 (VACANTI et al.) 15 January 1000 esc	1-49					
Y	US 5855610 (VACANTI et al.) 15 January 1999, see	1-72					
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Further	documents are listed in the continuation of Box C.	See patent far					
• S	pecial categories of cited documents:			rnational filing date or priority ation but cited to understand the			
"A" document	defining the general state of the art which is not considered to be		ory underlying the inve				
	lar relevance	"X" document of pa	rticular relevance: the	claimed invention cannot be			
"E" earlier ap	plication or patent published on or after the international filing date	considered nove	el or cannot be conside	red to involve an inventive step			
"L" document	which may throw doubts on priority claim(s) or which is cited to	when the docum	nent is taken alone				
establish	the publication date of another citation or other special reason (as			claimed invention cannot be			
specified)				when the document is documents, such combination			
"O" document	referring to an oral disclosure, use, exhibition or other means		o a person skilled in th				
"P" document published prior to the international filing date but later than the priority date claimed		"&" document mem	ber of the same patent	family			
		Date of mailing of the	international sec-	ch report			
Date of the a	ctual completion of the international search	Date of mailing of the		en report			
12 July 2004 (12.07.2004) <b>27</b> OCT 2004							
li .	ailing address of the ISA/US	Authorized officer	11 1.5	<del>i , , , , , , , , , , , , , , , , , , ,</del>			
1	il Stop PCT, Attn: ISA/US	Ms. Arti Singh		rulfiched			
Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. 571-272-0944							
	exandria, Virginia 22313-1450	reteptione No. 3/1-2	12-0344	K(4			

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